

What is Claimed is:

1 1. A method for executing a query against a database, wherein the database
2 includes partitions for storing table data based on a partitioning schema with each
3 partition associated with a partition identifier and database catalog information associated
4 with the database, the method comprising:

5 (a) identifying a partition identifier in accordance with the partitioning schema;
6 (b) selecting the partition identifier based upon the contents of the query and the
7 database catalog information; and
8 (c) executing the query against the identified partition.

1 2. The method of claim 1, wherein step (b) further includes:
2 (b.1) storing the database catalog information in a database catalog cache.

1 3. The method of claim 2, wherein step (b.1) further includes:
2 (b.1.1) building a subset of the database catalog; and
3 (b.1.2) storing the subset of the database catalog in the catalog cache.

1 4. The method of claim 1, wherein step (b) further includes:
2 (b.1) resolving the partition identifier.

1 5. The method of claim 4, wherein step (c) further includes:
2 (c.1) executing the query based upon the identified partition identifier.

1 6. The method of claim 4, wherein step (b) further includes:
2 (b.2) forwarding the identified partition identifier to a client application
3 requesting table data.

1 7. A database management system for executing a query against a database,
2 wherein the database includes partitions for storing table data based on a partitioning
3 schema with each partition associated with a partition identifier and database catalog
4 information associated with the database, the method comprising:
5 a schema-lookup module to identify a partition identifier in accordance with the
6 partitioning schema;
7 a partition-router module to select the partition identifier based upon the contents
8 of the query and the database catalog information; and
9 a data-manager module to execute the query against the identified partition.

1 8. The system of claim 7, wherein the partition-router module includes:
2 a catalog-cache module to store a portion of the database catalog information in a
3 database catalog cache.

1 9. The system of claim 8, wherein the catalog-cache module includes:
2 a build-cache module to build a subset of the database catalog; and
3 a store-cache module to store the subset of the database catalog in the catalog
4 cache.

1 10. The system of claim 7, wherein the partition-router module includes:

2 a connection module to resolve the partition identifier.

1 11. The system of claim 10, wherein the data-manager module includes:
2 an execution module to execute the query based upon the identified partition
3 identifier.

1 12. The system of claim 10, wherein the partition-router module includes:
2 a client-coordinator module to forward the identified partition identifier to a client
3 application requesting table data.

1 13. A program product apparatus having a computer readable medium with
2 computer program logic recorded thereon for executing a query against a database,
3 wherein the database includes partitions for storing table data based on a partitioning
4 schema with each partition associated with a partition identifier and database catalog
5 information associated with the database, said program product apparatus comprising:
6 a schema-lookup module to identify a partition identifier in accordance with the
7 partitioning schema;
8 a partition-router module to select the partition identifier based upon the contents
9 of the query and the database catalog information; and
10 a data-manager module to execute the query against the identified partition.

1 14. The program product of claim 13, wherein the partition-router module
2 includes:

3 a catalog-cache module to store a portion of the database catalog information in a
4 database catalog cache.

1 15. The program product of claim 14, wherein the catalog-cache module
2 includes:
3 a build-cache module to build a subset of the database catalog; and
4 a store-cache module to store the subset of the database catalog in the catalog
5 cache.

1 16. The program product of claim 13, wherein the partition-router module
2 includes:
3 a connection module to resolve the partition identifier.

1 17. The program product of claim 16, wherein the data-manager module
2 includes:
3 an execution module to execute the query based upon the identified partition
4 identifier.

1 18. The program product of claim 16, wherein the partition-router module
2 includes:
3 a client-coordinator module to forward the identified partition identifier to a client
4 application requesting table data.